The Importance of Job Planning

NECA's electrical contractors are well positioned during a time when utilities are investing billions of dollars in their systems. With an emphasis on system hardening and replacing aging infrastructure, there are plenty of opportunities for generating revenue. The situation tends to be, too much work and not enough resources. Short turn-around for larger, more complex projects means less time is available for job planning. Since planning plays a critical role in the success of a job, skimping in this area can have a negative impact on safety, quality, and profitability. It's important to establish a job planning process that provides flexibility and for emphasis where it matters most. This month, I'd like to focus on several key elements of job planning pertaining to safety.

Pre-Inspection

If your work consists of pre-established time & equipment or unit-based billing, odds are that the work is routine and predictable. This doesn't mean that a robust pre-bid job planning process won't be beneficial. Understand the scope of work and the types of environments where it will be performed. Try to anticipate issues that are likely to arise at some point during work. Using the "What's the worst thing that could happen?" philosophy can help point to hazardous conditions could develop if controls aren't put in place. Be on the look out for complacency, routine jobs create prime conditions for risk tolerance and drift.

Lump sum projects tend to be larger and more complex. Many times, they require coordination with other disciplines or outside agencies. Presumably, project management software is used to identify resource demands, interdependencies, and sequencing. Apply the same techniques used for productivity and cost control to your safety plan and start early. Once the job package is in hand, make sure someone in your organization who is familiar with the work and the safety requirements is physically "walking" the job down to develop a work plan. The work plan should consider equipment needs, access restrictions, security issues, material storage, and hazardous conditions. This preliminary step is often compromised in the interest of time, leaving it to the crew to address on an active job. Certainly, well trained crews can identify hazards and control them, but the opportunity could be lost to implement more effective controls in advance. Issues, such as access, equipment capability, traffic management, weak or defective structures are better addressed in a methodical and planful manner.

Active Job Planning

When discussing job planning in the context of safety, many terms may seem interchangeable but that's not always the case. Activity Hazard Analysis (AHA), Job Safety Analysis (JSA), and Job Hazard Analysis (JHA) are generally recognized as the same thing. However, a job briefing serves a slightly different purpose – communication. A Job Hazard Analysis or JHA is a process of laying out tasks in detailed steps, the hazards associated with those specific steps, and how those hazards will be controlled. This process can be used at a corporate level, looking at all the work the company is engaged in and ensuring the safety program addresses the associated hazards. For example, what procedures do we have, what PPE will be required, how will employees be trained, etc.

A hazard analysis should be used by the crew on an active job site as well. The JHA needs to be the first step in a comprehensive hazard identification and job briefing process. The person in

charge should go through the same systematic process of listing the steps, identifying hazards, and assigning controls. Ideally, the entire crew has an opportunity to participate since different perspectives can help root out hazards not seen by another crew member. Another consideration in this early stage of the process is to establish what steps are Critical Steps. Critical Steps can be defined as any human action that will trigger immediate, irreversible, and intolerable harm to an asset if that action or a preceding action is performed improperly. Tasks such as installing jumpers and removing bridles is a complex task that certainly has steps that are critical to perform correctly. If not performed correctly, immediate, irreversible, and intolerable harm will occur. Identify what steps in your JHA are critical and discuss these in more detail during the job briefing. Another best practice is to establish “Hold Points” into the job plan. Hold points provide a planned pause in the job before a critical step is performed. For example, cutting the bridle after jumpers have been installed was identified by the crew as a critical step. Before the bridle is cut, the crew stops work and confirms that all safeguards are in place before proceeding, including the jumper is properly installed. The person in charge confirms understanding of the crew and everyone agrees that its ok to proceed. This underutilized method is easy to implement and can significantly reduce the odds of failure.

The Job Briefing

As I mentioned above, the JHA and the job briefing are two distinct processes, each with its own purpose. The JHA is a systematic process of laying out steps, hazards, and controls. The job briefing is used to communicate to the crew the results of the JHA. The first thing we want to do is make sure the crew knows what its task is that day, in other words, the scope. Then we need to address what OSHA defines as minimum requirements for the job brief; hazards associated with the job, work procedures involved, special precautions, energy-source controls, and personal protective equipment requirements. This is a good time to discuss the JHA, define the sequence of work, and assign individual responsibilities. Lastly, the job briefing should cover what the crew will do if something goes wrong. All of this should be delivered and documented in a way that makes it easy on a crew. Avoid turning the job briefing into a science project and keep it succinct and to the point.

Organizations that begin job planning early and have touch points during every phase of the project set themselves up for success. Addressing issues before they become a problem prevents heavy burdens falling on the crew and will reduce the likelihood of a compromise being made to keep a job moving.

Thank you,

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